

In the Claims:

Please add new claims 31-36, and amend the pending claims as follows:

Claim 3, line 2, delete "or 2".

Q2

1 Claim 8 (Amended) A method for the formation of an embedded
2 electroconductive layer, comprising the steps of:
3 forming an opening part or a depressed part in an insulating layer;
4 forming a barrier layer for covering one of said opening part [or] and said
5 depressed part, said barrier layer being formed of a material selected from the group
6 consisting of TiSiN, WN, TaN, TiN, and Al₂O₃;
7 forming on said barrier layer a growth promoting [TiN] layer containing
8 oxygen at a lower concentration than said barrier layer;
9 depositing [aCu] an electroconductive layer on and in contact with said growth
10 promoting [TiN] layer by the use of a chemical vapor [growth] deposition method and
11 embedding said electroconductive [Cu] layer in one of said opening part [or] and said
12 depressed part; and
13 removing the unwanted parts of said barrier layer, said growth promoting
14 [TiN] layer [of a low oxygen concentration], and said electroconductive [Cu] layer [by
15 chemical mechanical polishing].

Claim 10, line 1, delete "9" and insert --8--.

Claim 12, line 2 delete "Ti" and insert --TiN--.

1 Claim 15 (Amended) The method according to claim 8, wherein said
2 growth promoting [TiN] layer containing oxygen at a lower concentration than said barrier
3 layer is deposited by a chemical vapor [growth] deposition method.

1 Claim 16 (Amended) The method according to claim 8, wherein said
2 growth promoting [TiN] layer containing oxygen at a lower concentration than said barrier
3 layer is deposited by a collimation sputtering method or long throw sputtering method
4 interposing an interval of not less than 10 cm between a target and a substrate under
5 treatment.

--Claim 31 (New) The method according to claim 8, wherein said step of
removing the unwanted parts is conducted using a chemical mechanical polishing method.

1 Claim 32 (New) The method according to claim 8, wherein said growth
2 promoting layer is made of TiN.

1 Claim 33 (New) The method according to claim 8, wherein said
2 electroconductive layer is made of a material selected from the group of Cu, Al and Al alloy.

1 Claim 34 (New) A method for the formation of an embedded
2 electroconductive layer, comprising the steps of:

3 forming an opening part or a depressed part in an insulating layer;

4 forming a barrier layer for covering said opening part or said depressed part
5 by the use of a physical vapor deposition method;

6 forming on said barrier layer a growth promoting layer by the use of a chemical
7 vapor deposition method;

8 depositing said electroconductive layer on said growth promoting layer to
9 embed said electroconductive layer in said opening part or said depressed part; and

10 removing the unwanted parts of said barrier layer, said growth promoting layer
11 of a lower oxygen concentration, and said electroconductive layer.

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2 Claim ~~34~~ (New) A method for the formation of an embedded
electroconductive layer, comprising the steps of:

3 forming an opening part or a depressed part in an insulating layer;

4 forming a barrier layer for covering said opening part or said depressed part
5 by the use of a physical vapor deposition method, said barrier layer being formed of a
6 material selected from the group consisting of TiSiN, WN, TaN, TiN, and Al₂O₃;

7 forming on said barrier layer a growth promoting layer by the use of a chemical
8 vapor deposition method;

9 depositing said electroconductive layer on said growth promoting layer to
10 embed said electroconductive layer in said opening part or said depressed part; and

11 removing the unwanted parts of said barrier layer, said growth promoting layer
12 of a lower oxygen concentration, and said electroconductive layer.

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1 Claim 35 (New) A method for the formation of an embedded
2 electroconductive layer, comprising the steps of:

3 forming at least one of an opening part and a depressed part in an insulating
4 layer;

5 forming a barrier layer for covering said at least one opening part and
6 depressed part, said barrier layer being formed of a material selected from the group
7 consisting of TiSiN, WN, TaN, TiN, and Al₂O₃;

8 forming on said barrier layer a growth promoting layer containing oxygen at
9 a lower concentration than said barrier layer;

10 depositing said electroconductive layer on and in contact with said growth
11 promoting layer and embedding said electroconductive layer in said at least one opening part
12 and depressed part; and

13 removing the unwanted parts of said barrier layer, said growth promoting layer
14 of a lower oxygen concentration, and said electroconductive layer.

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1 Claim ~~36~~ (New) A method for the formation of an embedded
2 electroconductive layer, comprising the steps of:

3 forming at least one of an opening part and a depressed part in an insulating
4 layer;

5 forming a barrier layer against Cu for covering said at least one opening part
6 and depressed part;

7 forming on said barrier layer a growth promoting layer containing oxygen at
8 a lower concentration than said barrier layer;

9 depositing Cu film as an electroconductive layer on and in contact with said
10 growth promoting layer and embedding said electroconductive layer in said at least one
11 opening part and depressed part; and

12 removing the unwanted parts of said barrier layer, said growth promoting layer
13 of a lower oxygen concentration, and said electroconductive layer. --